

**UNITED STATES DEPARTMENT OF COMMERCE****United States Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

CS

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/429,723	10/29/99	HOPE	C BAL6019F0011

ROCKEY MILNAMOW & KATZ LTD
TWO PRUDENTIAL PLAZA -SUITE 4700
180 NORTH STETSON AVENUE
CHICAGO IL 60601

HM12/0828

EXAMINER

GRUNBERG, A

ART UNIT

PAPER NUMBER

1661

DATE MAILED:

08/28/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/429,723

Applicant(s)

Claude Hope et al.

Examiner
Ann Mari Grunberg

Art Unit
1661



- The MAILING DATE of this communication appears on the cover sheet with the corresponding address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 4, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Oct 29, 1999 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

Art Unit: 1661

DETAILED ACTION

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1661.

A continuation-in-part is an application filed during the lifetime of an earlier *nonprovisional* application. An application claiming the benefits of a provisional application under 35 U.S.C. 119(e) should not be called a "continuation-in-part" of the provisional application since the application will have its patent term calculated from its filing date, whereas an application filed under 35 U.S.C. 120, 121, or 365(c) will have its patent term calculated from the date on which the earliest application was filed, provided a specific reference is made to the earlier filed application(s), 35 U.S.C. 154(a)(2) and (a)(3). See MPEP 201.08

Applicant's election without traverse of Group I, claims 1-11 and 13-18 in Paper No. 7 is acknowledged. Applicant is reminded to cancel all claims drawn to non-elected inventions in the response to this office action.

Drawings

1. The drawings are considered to be informal because they fail to comply with 37 CFR 1.84(a)(1) which requires black and white drawings using India ink or its equivalent.

Photographs and color drawings are acceptable only for examination purposes unless a petition filed under 37 CFR 1.84(a)(2) or (b)(1) is granted permitting their use as formal

Art Unit: 1661

drawings. In the event applicant wishes to use the drawings currently on file as formal drawings, a petition must be filed for acceptance of the photographs or color drawings as formal drawings. Any such petition must be accompanied by the appropriate fee as set forth in 37 CFR 1.17(I), three sets of drawings or photographs, as appropriate, and, if filed under the provisions of 37 CFR 1.84(a)(2), an amendment to the first paragraph of the brief description of the drawings section of the specification which states:

The file of this patent contains at least one drawing executed in color. Copies of this patent with color drawing(s) will be provided by the Patent and Trademark Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings have been satisfied.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3, 10, and 13-18, and dependent claims 4-8, and 11, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1661

Claims 3 and 10 are indefinite due to the phrase “or derivatives thereof”. It is not clear how the term further modifies the claim since any plant derived from 752 would have a pedigree that includes 752. It is also not clear what “derivatives” is intended to modify. As a result, it is not clear what comprises derivatives of plant 752, or what comprises derivatives of a plant which has a pedigree that includes plant 752.

Claims 13 and 14 are vague and indefinite in the recitation “wherein the first and second parent *Eustoma* plant is the *Eustoma* plant of claims 1, 2 or 3”. It is unclear how a hybrid can have the same male and female parent which is indicated by “and”. Additionally, the verb does not accurately reflect the third person plural. As a result, it is unclear how claim 14 can be drawn to a hybrid.

Claim 15 is vague and indefinite due to the term “tested”. The preamble of the claim is drawn to a process for identifying a *Eustoma* plant. It is unclear how the plant is to be tested and it would appear that “tested” has no proper antecedent basis. The claim is missing the steps on testing and relating the result to the tested plant.

Claim 16 is vague and indefinite because it is incomplete. There is no step indicating how to recover or select a plant having an allele. It is also unclear how a plant obtained by the process of claim 15 can contain only one allele or how all the hybrids would only contain one allele for reduced apical dominance.

Claims 16 and 17 are vague and indefinite because it is not clear which plant of claim 15 is referred to since many types of plants may be obtained.

Art Unit: 1661

Claim 18 recites seeds, plants, and succeeding generations. Unless it is intended to claim a mixture of all of these items, they should be claimed in separate claims.

4. Claims 1-11 and 13-18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The invention employs the *Eustoma* cultivar designated '752', or a *Eustoma* containing an allele for reduced apical dominance. Since the plants are essential to the claimed invention they must be obtainable by a repeatable method set forth in the specification or otherwise be readily available to the public. If the plants are not so obtainable or available, the requirements of 35 USC 112 may be satisfied by a deposit of the plants.

It is noted in the Deposit Information in the specification, that hybrid seeds '3087' were deposited with the ATCC, however the specification is silent with regard to the number of seeds deposited. A deposit of 2500 seeds of the claimed embodiment is considered sufficient to ensure public availability. It is also noted that applicant states that this deposit was made in compliance with the Budapest Treaty.

Since the deposit was made under the terms of the Budapest Treaty, then an affidavit or declaration by applicants, or a statement by an attorney of record over his or her signature and

Art Unit: 1661

registration number, stating that 2500 seeds of the specific variety deposited under the Budapest Treaty and that it will be irrevocably and without restriction or condition be released to the public upon the issuance of a patent, would satisfy the deposit requirement for claims 1-2, 9, and 15-18. The deposit of 3087 would enable a plant containing an allele for reduced apical dominance given that both the parental lines of 3087 have reduced apical dominance.

However, such a deposit of hybrid seed 3087 does not meet the deposit requirements for any claims not directed exclusively to hybrid seed 3087 or a plant having reduced apical dominance. Specifically, the deposit requirement is not met with any plants containing derivatives of pedigreed line 752. Derivatives of 752 may not have the RAD allele, nor does a deposit of 3087 enable one skilled in the art to reproduce plant 752 or derivatives thereof.

Since 752 is an F2 and as such is segregating, a deposit of such seeds would not breed true to type and thus could not reproduce plant 752.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 16-17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 1661

The specification provides no guidance in how to recover hybrid *Eustoma* seed wherein the genome contains an allele for reduced apical dominance. Thus, if the F₁ from claim 15 already contains an allele for reduced apical dominance, the process in claim 16 would produce progeny, 25% which would have no allele and 25% which contained two alleles at the same locus. Those progeny containing only one allele, ie an allele, would not exhibit reduced apical dominance, due to the recessive nature of the trait. In contrast, the claims are drawn to *Eustoma* plants containing an allele for reduced apical dominance.

Given the unpredictability as defined in MPEP 2164.03 and lack of guidance as discussed above, undue experimentation would have been required by one skilled in the art to select for a *Eustoma* plant containing an allele which exhibits the reduced apical dominance phenotype. It also would have been undue experimentation to cross a *Eustoma* plant containing an allele for reduced apical dominance with a *Eustoma* plant containing an allele for reduced apical dominance and recovering progeny all of which contain an allele for reduced apical dominance. This rejection may be obviated by including in the claims a screening step to identify plants with the RAD allele.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

Art Unit: 1661

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 4-8, and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Griesbach et al.

Claims 1, 4-8, and 13-14 are drawn to a *Eustoma* plant having reduced apical dominance, as well as parts, tissue culture, and cuttings thereof. The claims are also drawn to a method for producing hybrid *Eustoma* seeds and plants.

Griesbach et al teach a *Eustoma* plant having reduced apical dominance as indicated at page 790, column 2, first sentence under "*Causes of variability*" where several variant plants produced by tissue culturing were basally branched, thus indicating reduced apical dominance. Cuttings of *Eustoma* plants having reduced apical dominance are described at page 790, column 3, lines 4-7. Griesbach et al also teach a method for producing F₁ hybrid *Eustoma* seed wherein the first and second parent plant exhibit reduced apical dominance (page 790, column 3, lines 15-17). The selfed progeny described in Griesbach et al were raised, indicating that the seed was germinated and grown into a plant.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1661

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-11, and 13-18, are rejected under 35 U.S.C. 103(a) as obvious over Griesbach et al.

The claims read on a *Eustoma* plant having reduced apical dominance which contains an allele for reduced apical dominance. The claims are also drawn to a process for identifying a *Eustoma* plant having an allele for reduced apical dominance and obtaining a hybrid.

Griesbach et al teach a *Eustoma* plant that has reduced apical dominance (page 790, column 2, first sentence after “*Causes of variability*”, for example). A person of ordinary skill in the art could argue that the plants produced by Griesbach et al contain an allele for reduced apical

Art Unit: 1661

dominance (page 790, column 3, lines 15-17). The plant inherently has pollen, ovules, and seed, even if they are not explicitly taught by Griesbach et al. Tissue culture was used to induce somaclonal variation (page 790, column 2, lines 14-17).

Griesbach et al do not specifically teach a plant having a pedigree which includes plant 752, the genetic trait identified in the specification is indistinguishable from the genetic trait taught by Griesbach et al, absent evidence to the contrary. Additionally, Griesbach et al do not specifically state the process for identifying a *Eustoma* plant, nor specifically state the process for obtaining a hybrid *Eustoma* plant, such processes are commonly used in the art. Griesbach et al transferred the trait into other generations (page 790, column 3, 3rd paragraph, for example). As a result, the processes would have been employed to establish heredity and genetic stability. Since the claims are not drawn to a specific genotype, and since the reduced apical dominance trait already exists for *Eustoma*, the claimed invention can not be distinguished from the prior art. Thus, the claimed invention was clearly *prima facie* obvious as a whole to one of ordinary skill in the art, if not anticipated by Griesbach et al.

No claim is allowed.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne Marie Grunberg whose telephone number is (703) 305-0805. The examiner can normally be reached from Monday through Thursday from 7:30 until 5:00, and every other Friday from 7:30 until 4:00.

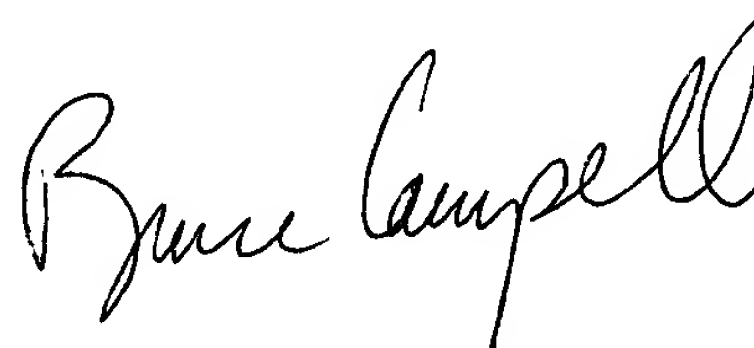
Application/Control Number: 09/429,723

Art Unit: 1661

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Bruce Campell, can be reached at (703) 308-4205. The fax number for the unit is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

AMG

A handwritten signature in cursive script that reads "Bruce Campell". The signature is written in black ink and is positioned to the right of the "AMG" text.

**BRUCE R. CAMPELL, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600**